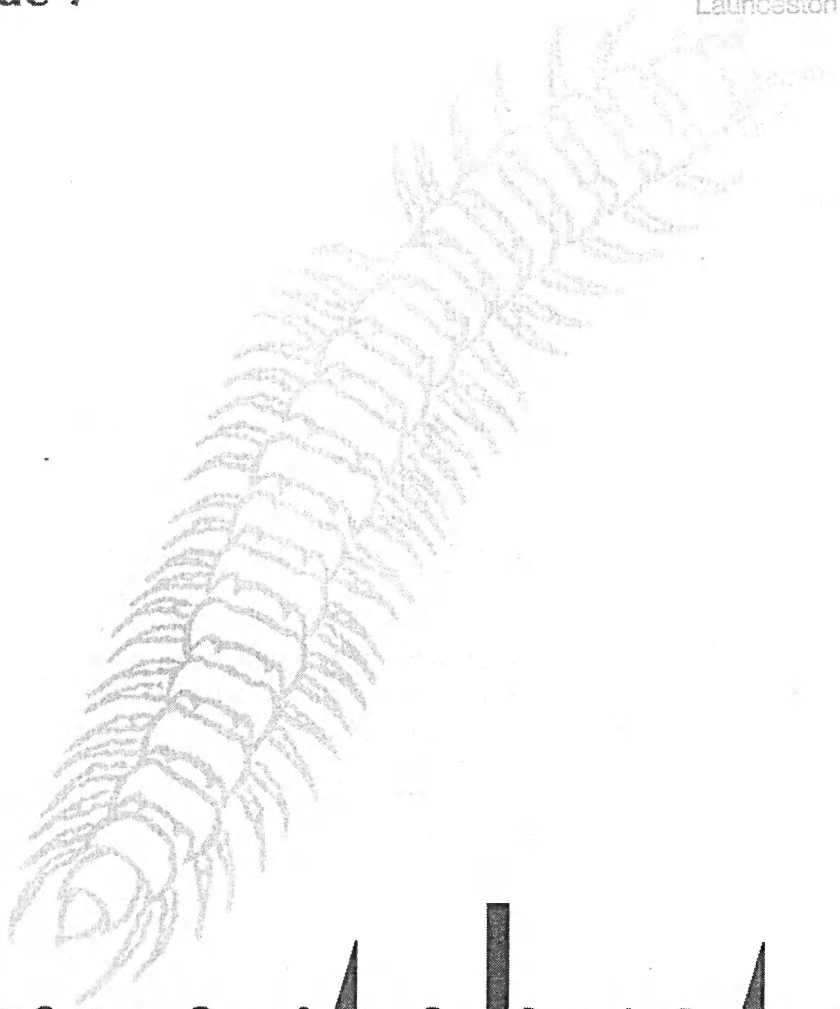


184/97

**SPRING/SUMMER 1996/97**

**Issue 7**

Library  
Queen Victoria Museum  
and Art Gallery  
Launceston



# Invertebrata

**Tasmania's Invertebrate Newsletter**

**A** belated Merry Christmas and Happy New Year. Yes, I am approximately three months behind in this issue of *Invertebrata* and I apologise for this. There are several reasons as well as a few excuses. Firstly, there were only a couple of written contributions and so it was not viable to produce such a small issue. Secondly, I have a new addition to my family, a very cute five month old called James. I can blame him for a lot of things . . . but I won't. The main thing is this issue is here! I would really like to thank all those people who made financial contributions to *Invertebrata* and we have a grand total of \$225. This will enable us to produce two more issues. Please keep your articles coming even if it is just to let people know what is happening in your area. *Invertebrata* is snailmailed (oh yes I'm up with the lingo) to many overseas destinations and it is also on the internet via the QVMAG home page.

I have resigned from my position as Research Officer from the QVMAG as from 5 February 1997. This also means that I will not continue producing *Invertebrata* and so I thank all those people who have given me support during my time as editor. Dr Bob Mesibov will take over as editor and I hope he will be well supported.

Written contributions to this newsletter can be submitted as hard copies (< 150 words), by e-mail or on disk in Mac or IBM format as text files. Opinions expressed in this newsletter are not necessarily those of the editor or the Queen Victoria Museum and Art Gallery.

**The deadline for the next issue is May 31 1997.**

Louise McGowan

Editor

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# Around the traps.....

## Zoology Department, University of Tasmania, Hobart

New PhD on Freshwater Crayfish: Brita Hansen is about to start a PhD project on the endemic freshwater crayfish genus *Parastacoides* under Alastair Richardson's supervision. Brita gained First Class Honours last year for a project dealing with the taxonomy of the genus and the first task of her PhD will be to complete and publish that study. As a biological illustrator with many years of experience with CSIRO, Brita starts with a considerable advantage in such work. The rest of her project will involve reconstructing post-glacial recolonisation patterns in this classically west-of-Tylers-Line species.

EESSH: stands for Ecology of Estuaries and Soft Sediment Habitats and was the title of a very successful conference held recently at Deakin University's Warrnambool campus. Tasmania was well-represented with Lynda Bellchambers and Nicki Chilcott talking about clams in lagoons and shallow bays, Julie Mondon and Brian Smith on the polluted sediments and invertebrates of the Tamar and Alastair Richardson on saltmarsh crustaceans and molluscs.

New Professor: Craig Johnson, a graduate of the University of Tasmania, has recently taken up the Chair of Zoology in Hobart. His research interests are in the ecology of marine encrusting communities and the impact of introduced species such as the Pacific seastar.

Dr Alastair Richardson  
Zoology Department

## Queen Victoria Museum and Art Gallery (QVMAG)

There is to be a change in staff in the Zoology section brought on by the resignation of Louise McGowan, yes subscribers that's correct, your very own editor will be leaving the Queen Victoria Museum. I would like take this opportunity to thank Louise for the great contribution she has made to the Museum and, in the present context, for putting in the hard work and persistence required to

develop *Invertebrata* to its current form. I'm sure you would all want to join me in wishing her well for the future.

Tammy Scarborough kept the Research Officer seat warm while Louise was on maternity leave and will continue to do so until a permanent appointment is made in the near future.

## Collections

The Inland Fisheries Commission recently passed over to the Queen Victoria Museum their entire collection of aquatic invertebrates, amounting to thousands of vials, accumulated over many years. These collections are currently receiving basic curation treatment to ensure their long-term preservation. External funding is being sought to enable the collections to be further sorted to taxonomic groupings. Notwithstanding this, parts of the collection are already available for loan to specialists, we are also prepared to give priority in sorting according to demand. So, if anyone out there is interested in examining specimens of any specific aquatic invertebrate group, from a wide range of Tasmanian localities, please get in touch with us. Molluscs are already being checked in-house by Dr Brian Smith and Dr Adrian Pinder is visiting us in late February to examine the smaller oligochaetes, so it is the insect groups that most require someone to take an interest.

The Monitoring Riverine Health Initiative invertebrate samples continue to arrive. These samples are sorted to either Order or Family level and, similarly, are available to specialists.

Mr Steve Cronin of the Launceston Environment Centre spent 6 weeks on Maatsuyker Island during the summer assisting with meteorological observations and was dragooned into making a collection of invertebrates for the Museum.

## Exhibitions

The former marine aquarium has been re-developed as a freshwater environment for the display of Tasmanian freshwater fauna. So far the animals on display include Tasmania's most spectacular non-marine invertebrate, the giant freshwater crayfish (*Astacopsis gouldi*) and two native fish species; the river blackfish (*Gadopsis marmoratus*) and the spotted galaxias (*Galaxias truttaceus*).

## Research

Post Iron Baron oil spill monitoring is continuing with the latest sampling having been conducted in September. One final sampling is planned for March this year.

Rob Blakemore and Tim Kingston have been revisiting the earthworms collected by Tim in 1990 as part of the National Parks WEBS study at Pelion Valley. This was in response to Mike Driessen's request for all Pelion Valley reports to be updated for publishing in a collected papers volume featuring this location. Typical of our recent experience of Tasmanian earthworms, the majority of the 25 species found at Pelion are undescribed, although a few species were also found in our survey around Lake Pedder.

Tim has continued his joint research with Mike Laffan of the Forest Practices Board on the relationships between soil profile and earthworms in north-east Tasmania. While they have previously concentrated on measuring earthworm density during the winter months when the worms are all near the surface, they are currently examining their vertical distribution in the soil during the summer months. This is being done both to explore the earthworms ability to survive the dry season and also to assess the depth to which earthworms have the potential to influence soil profile by their burrowing activity.

Research Associate Bob Mesibov took on an extensive project for the Regional Forest Agreement process analysing distribution records of selected invertebrate groups to identify possible 'bioregionalisation'. The RFA provided funds for the sorting and identification of some of the Inland Fisheries Collection and also gave support to Rob Blakemore to accelerate his studies of earthworm taxonomy in order that this group could be included in the bioregionalisation study.

Claudia Brockmann, a PhD student supervised by Dr Hilke Ruhberg in Hamburg, has been based at the Queen Victoria Museum since September last year. She has been carrying out field and laboratory studies of Tasmanian oviparous Onychophora (see article in Current Research section).

## New Projects / Grants

Plomley Foundation allocations for the current year were made to the following:

- \* Dr Rob Blakemore to continue his research on the taxonomy of Tasmanian native earthworms, largely based upon the extensive National Estate earthworm collection.
- \* Dr Helen Hocking to assist with her studies of the aquatic invertebrates of streams in north-east Tasmania.
- \* Dr Robert Walsh to enable him to curate and identify aquatic invertebrates collected from north-east Tasmanian wetlands during previous Plomley Foundation funded projects.

## Recent Publications

Louise McGowan and Paul Pielage (1996) *Common Venomous Animals in Tasmania*. 54 pp. Queen Victoria Museum and Art Gallery

Symposium Volume (1996) *Biogeography of northeast Tasmania* Records of the Queen Victoria Museum, Number 103, 215 pp.

Dr Tim Kingston  
Queen Victoria Museum and Art Gallery

## Briefly ...

My term as a Regional Councillor - Tasmania, for the Australian Entomological Society has ended and Dr Tony Clarke has taken over. His address for information or membership to the society is:

Dr Tony Clarke  
CRC for Temperate Hardwood Forestry  
Locked Bag No 2  
Sandy Bay  
Tasmania 7005

Dick Bashford  
Forestry Tasmania

# REGISTER

phone	Fax	email	interest
LEN OSMOND, 5064 SA	08 303 7265	08 379 4095	Parasitic Hymenoptera
SA	08 303 5594		Taxonomy of Buprestidae
2 338231	03 62 338292	db3@forestry.tas.gov.au	Forest Entomology
6 DARWIN	801	N.T.	089 898 211 089 898 289 Entomology
TAS	03 63 365254	03 63 365365	Freshwater Invertebrates
03824	USA	603 862 1735	603 862 4757 dsc1@christa.unh.edu Forest
7000	TAS	03 62 236622	03 62 234372 Aquatic Insects
07 875 5398		07 875 7459	Spider ecology & taxonomy, community
7001	TAS	03 62 333 791	03 62 333477 TASPAAWS
3150 WA	09 360 2939	09 310 4947	davis@essuu1.murdoch.edu.au
			Insect Ecology
3 301493			Lepidoptera (amateur)
06 246 4121	06 246 4000	pennyg@ento.csiro.au	General
WA	09 328 4411	griffith@muswa.dialix.oz.au	Marine Invertebrates
2600	ACT	06 249 3028	06 249 5573 Penny.Gullan@anu.edu.au
WA	09 427 2737	09 328 8686	"Arachnids (pseudoscorpions,
ON 7250	TAS	003 327 675	03 63 327695 Coleoptera & general
Box 303	DEVONPORT	7310	TAS 03 64 217636 03 64
			Dipsocoromorphan Hemiptera (taxonomy), Agricultural Entomology.
ART	7001	TAS	03 62 202837 General/Aquatic Insects
2001 NSW		02 339 8322	02 360 4350 Tax. of Opiliones & of Oribatid
CANADA	519 885 4708		Aquatic arthropods
4101	QLD	07 840 7707	07 846 1918 G.Ingram@Mailbox.uq.edu.au
2 345230			invertebrate biogeography (esp. Earthworms)
	03 62 325356	03 62 325000	General
46 2468	06 246 4000		Systematics and biology of Coleoptera
SA	08 207 7506	08 207 7222	Coleoptera - Tenebrionidae
mmmond Street	FALMOUTH	7215	TAS 03 63 725143 03 63 725619
AS	03 62202 840	03 62 202989	"Insect ecology, insect-plant relationships"

Dr Robert Mesibov	P.O. Box 700, BURNIE, 7320 TAS	03 64 313428
Ms Karyl Michaels	University of Tasmania	GPO Box 252C HOBART
Dr Ian Naumann	CSIRO, P.O. Box 1700, CANBERRA, 2601	ACT 06 2
Dr Arturs Neboiss	Museum of Victoria	71 Victoria Crescent ABBOTSF
Dr Ebbe Neilsen	CSIRO, GPO Box 1700, CANBERRA	2601 ACT 06 2
Mr Mark Neyland	Dept of Environment & Land Management	GPO Box 4
	particularly rare species"	
Dr David Obendorf	Mt Pleasant Laboratories	40 Dandenong Rd TRE
Dr Adrian Pinder	University of New England	ARMIDALE 2351 NSW
Dr Winston Ponder	The Australian Museum	6-8 College ST SYDNEY
	winston@amsg.austmus.oz.au Freshwater and terrestrial mo	
Dr Harley Rose	University of Sydney	SYDNEY 2000 NSW 02 3
Mr Craig Hutton Proctor	C.S.I.R.O. G.P.O. Box 1538	HOBART 7001
	pests; at present <i>Carcinus maenas</i>	
Dr Hilke Ruhberg	Zoologisches Instut und Zoologisches Museum Martin Luther	3937 Onychophora
Miss Margaret Schneider	University of Queensland, ST LUCIA	4072 QLD 07 3
Mr Trevor Semmens	Department of Primary Industries, GPO Box 192 B	HOB
Dr Brian Smith	QVMAG C/- QVMAG	LAUNCESTON 7250 TAS
Ms Julie Smith	Department of Primary Industries, P O Box 46	KINGS MEA
Dr Courtenay Smithers	The Australian Museum, 6-8 College St, SYDNEY	2000
Dr Ronald Southcott	2 Taylors Rd MITCHAM	5062 SA 08 271 4433
Mr Chris Spencer	PO Box 73 SMITHTON	7330 TAS 03 64 56125
Mr Martin	Steinbauer University of Tasmania Locked bay No.2 P.O.	
	ecology of heteropterans and their insect-plant interactions	
Dr Mark Stevens	Yanco Agricultural Institute PMB Yanco	SYDNEY
	Taxonomy of Australian ledrine leafhoppers	
Dr Robert Taylor	Forestry Tasmania 199 Macquarie St.	HOBART
	of forest invertebrates	
Ms Liz Turner	Tas Museum & Art Gallery GPO Box 1164M	HOB
	biology, specialising in micro-molluscs & echinoderms. Spid	
Ms Chris Ann Urquhart	State Forests of NSW, PO Box 100, BEECROFT	2119
	Entomology	
Mr Robert Walsh	University of Tasmania	GPO Box 252C HOBART
	(especially microcrustaceans).	
Mr Tom Weir, CSIRO,	GPO Box 1700, CANBERRA 2601 ACT	06 246 4267
	selected groups of Coleoptera & Gerromorpha ( Hemiptera)	
Mr Leigh Winsor	James Cook University Post Office, J.C.U."	TOW
	JCU.edu.au Terrestrial Flatworms (Terrestrial nemerteans;	
Mr Norman Woodley	Smithsonian Institution NHB 168	WASHINGTON DC 2
	"Diptera: Brachycera, esp. Stratiomyidae"	

			Litter Invertebrates		
7001	TAS	03 62202 832		Coleoptera	
246 4001	06 246 4264	iann@ento.csiro.au		Hymenoptera	
ORD 3067	VIC	03 284 0200	03 416 0475	Trichoptera	
246 4258	06 246 4264	ebben@ento.csiro.au		Lepidoptera	
4A HOBART	7001	TAS	03 62336 164	03 62 333477	"Butterflies,
EVALLYN	7250	TAS	03 63 315191		Parasitology/limnology
W 067 732 403	067 732 769				Systematics of Aquatic Oligochaeta
2000	NSW	02 93206120	02 93206050		
olluscs					
5514595	02 3516928	roseh@agric.usyd.edu.au			Native cockroaches
1 TAS	03 62325376	03 62325000	proctor@ml.csiro.au		Introduced
er King Platz 3, D-20146 HAMBURG GERMANY				040 4123 5644	040 4123
65 2257	07 365 1922	"Biosystematics of Diptera, especially acalyptrates"			
BART	7001	TAS	03 62336 838	03 62 782716	General Entomology
S					Malacology .
DOWNS	7249	TAS	03 63 36 5402	03 63 365365	Aquatic invertebrates
0 NSW	02 339 8221				"Taxonomy of Psocoptera, Neuroptera & Mecoptera"
E	08 276 8873				Acarina
5					Invertebrate Ecology
O. SANDY BAY	7005	TAS	03 62207 951	03 62 207942	Biology and
s. Dung beetles.					
2703	NSW	069 512611	069 530 268	steven@agric.nsw.gov.au	
	7000	TAS	03 62338 141		rjt@forestry.tas.gov.au conservation
BART	7000	TAS	03 62 350724	03 62 347139	"Marine
ders - I.D. & ecology"					
9 NSW	02 872 0131	02 871 6941			"Malacology (personal), Forest
	7001	TAS	03 62202 613	03 62 202745	Freshwater microinvertebrates
	06 246 4000	tomw@ento.csiro.au			Taxonomy & Zoogeography of
NSWVILLE	4811	QLD	077 814 181	077 251 1570	leigh.winsor.@
(Acoela)					
20560	USA	202 382 1802	202 786 9422	mnhen 105@sivm.si.edu	

# INVERTEBRAT

	Organisation	Street	Town	Post code	State	Tele
Dr Andy Austin	Waite Campus, University of Adelaide,				PO Glen Osmond,	
Dr Shelley Barker,	University of Adelaide, North Terrace,				ADELAIDE	5005
Mr Richard Bashford,	Forestry Tasmania, GPO 207B,				HOBART, 7001 TAS	03
Dr Graham Brown	Northern Territory Museum of Arts & Sciences				GPO Box 46	
Mr Michael Cassidy	Waterwatch	P O Box 46			KINGS MEADOWS	7249
Prof Donald Chandler	University of New Hampshire,				Durham, NEW HAMPSHIRE	
	litter coleoptera					
Mr Stuart Chilcott	Inland Fisheries Commission			127 Davey St	HOBART	
Ms Tracey Churchill	Griffith University			NATHAN	4111 QLD	
	ecology					
Mr Mike Comfort	Parks & Wildlife Service			GPO Box 44A	HOBART	
Ms Jenny Davis	School of Environment & Life Sciences				MURDOCH,	
	Psephenidae beetles. Wetland ecology					
Mr Simon Fearn	11 Osberg St	THE GAP		4061 QLD	07 300 5650	
Mr Michael Fletcher	5 Coorong Place	LEGANA		7277	TAS	03 6
Dr Penelope Greenslade	CSIRO	GPO Box 1700		CANBERRA	2601 ACT	
Ms Jane Griffith	Western Australian Museum	Francis St			PERTH 6000	
Dr Penny	Gullan The Australian National University				CANBERRA	
	Systematics of Coccoidea					
Dr Mark Harvey	Western Australian Museum, Francis Street,				PERTH, 6000	
	watermites, spiders)"					
Mr Dane Hayes	Launceston General Hospital	Charles Street			LAUNCESTON	
	entomology					
Mr Lionel Hill	Department of Primary Industries and Fisheries				P.O.	
	245142lhill@aries.dpi.tas.gov.a				Tasmanian Noctuida	
Dr Helen Hocking	University of Tasmania	GPO Box 252 C			HOE	
Dr Glen Hunt	The Australian Museum, P.O. Box A285,				SYDNEY SOUTH	
	mites.					
Dr Noel Hynes	127 Iroquois Place				WATERLOO, N2L2S6	ONTARIO, C
Dr Glen Ingram	Queensland Museum	PO Box 3300			SOUTH BRISBANE	
	Isopods, slaters, oniscids					
Dr Tim Kingston	QVMAG, LAUNCESTON,			7250 TAS	03 62 343543	03 6
Dr Peter Last	CSIRO, Castray Esplanade,			HOBART	7001 TAS	
Dr John Lawrence	CSIRO, GPO Box 1700,			CANBERRA 2601	ACT	06 2
Dr Eric Matthews	South Australian Museum, North Terrace,				ADELAIDE 5000	
Dr Tim McManus	Department of Primary Industries and Fisheries				1 Ha	
	Wildlife ecology, Zoonotic diseases					
Dr Peter McQuillan	University of Tasmania, GPO Box 252C,				HOBART 7001 T	

Kevin Bonham accompanied Parks and Wildlife Service personnel to King, Hunter, Three Hummock and Robbins Islands in western Bass Strait this summer. He collected numerous land snails and will be reporting the results elsewhere.

The Australia New Zealand Scientific Exploration Society (ANZSES) mounted an expedition to rainforest in the Savage River Pipeline Road area in January. By prior arrangement, specimens were sent to specialists for identification, with the bulk of the material to be deposited at the QVMAG. For more information about the invertebrates collected, contact Nigel Weston, C/- 3 Eykin Cl., Carina Heights, QLD 4152.

Bob Mesibov is in the midst of a centipede audit at the QVMAG. All specimens and label data are being checked, unregistered specimens are being registered and put on the database, and the database itself is getting a nit-picking data audit. Bob says his mother, a bookkeeper, would have been proud. Millipedes are next!

Cartoon By Bob Mesibov



## Articles

### Around Australia in 22 days

Professor Norm Platnick, post-doctoral fellows Drs Vladimir Ovtsharenko and Kefyn Catley, all from the American Museum of Natural History, arrived in Brisbane on 19 November. They are running on PEET and ABRS grant funds and are working on ground hunting spiders of the superfamilies Gnaphosoidea and Clubionoidea. They were based in Brisbane and Robert Raven accompanied them on field trips to north Queensland, New South Wales,

Western Australia, Darwin and Victoria. They may also be visiting other state natural history museums in Canberra, Melbourne, Adelaide, Perth and possibly Darwin.

The really exciting news is that during this trip we tried the David Hirst vibration method (after seeing 'vibration' as the method of collection on sooo many spiders in the museum in Adelaide).

We were at York, WA. We had Barbara York Main, Julieanne Waldock, Mark Harvey, Robert and the AMNH crew (7 of us). We searched for 1.5 hours and got little, despite the litter on John Bannister's property, which had not been burnt, being about 3-4 inches deep. Amazing! Mark got back and remembered to start up the diesel troop carrier. I (Robert) was standing on the litter at the time and my God the litter boiled with spiders! They didn't home on the vehicle much but just kept coming up and running around. After about 20 minutes we were glutted and moved the car about 5 metres and kept going. In all we stayed about 40 minutes. I got over 60 spiders, many mature. The rest got more because after I stopped remonstrating and got my composure I ran off to get the video but the effect was now less dramatic. We were all in shock and exhausted. Spiders were still moving but we were truly glutted. The range of effectiveness was 15-20 metres. Amazing stuff. Sadly, it did not work later in bushland sand. Hopefully, we can do something similar by pulling a lead off a spark plug of the Falcon in the north. This revolutionised my thinking about sampling. We have to isolate the frequency and amplitude and figure out a portable 'truck'.

On returning home and trying this method with various measures of success, we are looking forward to David Hirst's formal exposition of how to get it to really work well.

Dr Robert J Raven, Museum Scientist (Arachnology)  
Queensland Museum, Grey St, PO Box 3300, South Brisbane, 4101, Q.  
Australia Fax: 61-7-3846 1918; Phone 61-7-8407698  
r.raven@mailbox.uq.oz.au

## *Land Nemertines for Fun and Profit*

In *Invertebrata* No. 1 I wrote about the land nemertine *Argonemertes australiensis*, which I described as looking like an overweight flatworm. I also gave references to what I called the 'small but informative literature' on this species. Well, maybe not so informative - surprisingly little is known about the biology and day-to-day life of *A. australiensis*. The world expert on land nemertines is Dr Janet Moore of the Zoology Department, University of Cambridge (UK). Last July I visited Dr Moore (an *Invertebrata* subscriber!) and asked whether she could suggest any questions about *A. australiensis* that could be answered by naturalists in Tasmania, where the worms are common and fairly easy to find. The result was a feast of do-it-yourself biology:

**Captive worms.** 'I think the most valuable thing is simply to keep them alive in the lab and see what they do. Nobody has done this for ANY land nemertine'. Night time observations with infra-red (or weak red light?) will be necessary, since the worm's likely to be strictly nocturnal. They also require high humidity - a cage with a floor of damp (but not dripping wet) rotting wood or Kleenex tissues (easier to change when mould appears!) might be OK.

**Early development.** The egg capsules (I've found them in rotting logs in August and March) are clear, jelly-like objects about 10 mm long and 3 mm in diameter. How long do the eggs take to develop? Do they all hatch at once? What triggers hatching?

**Hatchlings and adults.** What times of day are they active and for how long? What, when and how do they eat? (Nemertines are believed to be predators that feed mainly on live soil arthropods.) What range of temperatures, humidity, light regimes etc. keeps them happiest? What sort of oxygen consumption do they have at rest and when active? Can lab results be confirmed in the field? (For example, if they're lab-active from midnight to 3 am in mid-summer, are they forest-active from midnight to 3 am in mid-summer?)

**Later development.** As *Argonemertes* get older they get longer and heavier and have more eyes, but there isn't a growth chart yet for these or other features. One is needed!

**Colour.** As I mentioned in the earlier *Invertebrata* article, there are distinct

colour varieties for this species in Tasmania, often with several at one locality. Genetics could be tricky to study, but do all colour forms come out of one egg capsule or only one? Dr Moore wants to know why land flatworms and nemertines often have similar markings. 'Who is mimicking whom and why? Who can ever see the beasts anyway - a nocturnal predator with infra-red vision?'

**Gelatinous cocoons.** Two other *Argonemertes* species secrete these structures and shelter in them when conditions are adverse. *A. australiensis* hasn't yet been seen to make such a cocoon. Does it?

**Parasite infestation.** New Zealand land nemertines are sometimes heavily parasitised. Are ours? Could it be that the parasite changes the behaviour of its host, bringing it out of hiding so the parasite can complete its life cycle, as happens with some snail parasites?

Lots to learn! For information on what little is already known, see that small literature:

Hickman, V.V. 1963. The occurrence in Tasmania of the land nemertine, *Geonemertes australiensis* Dendy, with some account of its distribution, habits, variation and development. Papers and Proceedings of the Royal Society of Tasmania 97: 63-75.

Winsor, L. 1985. The land nemertine *Argonemertes australiensis* (Dendy) in south eastern Australia. Victorian Naturalist 102: 28-36.

Bob Mesibov  
Research Associate  
Queen Victoria Museum and Art Gallery

## Unusual web-building behaviour in the Redback spider, *Latrodectus hasseltii*

A sub-adult female redback spider was collected in March 1996 for display in the live spider display at the QVMAG. She was collected from underneath the rim of a large black plastic pot plant container.

Once she was placed in the display she began to build a web between sticks that had been placed in the display for that purpose. The display consists of a transparent perspex box divided into six cubicles. The divisions are also transparent.

Within a few days, pieces of substrate began to appear in the web to form a triangular shelter under which the spider could conceal herself. Pieces of substrate included small rocks up to 11 mm wide. The shelter was not used continuously. The spider would suspend herself outside of the shelter unless she was disturbed by any vibration and then she would quickly retreat under the shelter.

Several other specimens have been kept in this display and this behaviour has not been observed. Redback spiders in the wild do not appear to construct shelters and where debris is apparent it has been attributed to wind deposition (R. Raven, pers. comm. 1996).

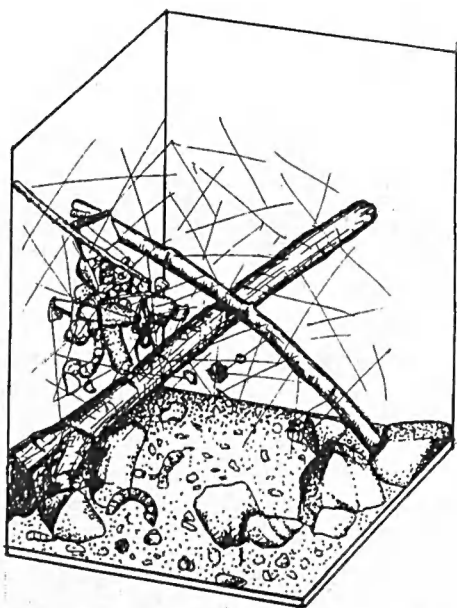


Illustration of spider in web by Judy Rainbird.

Louise McGowan  
Research Officer  
Queen Victoria Museum and Art Gallery

# Current Research

A six month study of the egg-laying velvet worms (Onychophora) of Tasmania is being funded by the German Scientific Foundation. This PhD project will study the morphology, anatomy, development and biology of oviparous Onychophora. Morphological and anatomical examinations will be undertaken with the intention of clarifying the taxonomy of the *Ooperipatellus insignis* complex. This complex contains 11 species, only two of which have been described (Ruhberg 1995). Live specimens of three *Ooperipatellus* species are being kept in the laboratory for observation.

An 'onychophoran-swarming' was observed in the Fingerpost area, about 8 km east of Waratah (NW Tasmania) on 12 October, 1996 with Bob Mesibov. Approximately one hour after sunset 20 specimens of *Ooperipatellus decoratus* were found climbing up ti-trees (*Leptospermum lanigerum*). They had dispersed 30 minutes later. This 'swarming' has been observed once before by Bob Mesibov in the same locality on 18 October, 1991.

## Reference:

Ruhberg, H. 1995. Zur Systematik, Biologie und mikroskopischen Anatomie der Onychophora, insbesondere der Peripatopsidae Tasmaniens. Forschungsbericht zur kumulativen Habilitation des Fachbereiches Biologie der Universitaet Hamburg (unpublished) 42pp.

Claudia Brockmann  
Zoologisches Institut & Zoologisches Museum  
Universitaet Hamburg  
(Currently at the Queen Victoria Museum and Art Gallery)

**Cover illustration by Mike Tobias**

Undescribed *Lissodesmus*  
confined to NE Tasmania